What is claimed is:

1. A method of forming a trench isolation in a substrate, said method comprising the steps of :

forming a trench groove in a substrate ;

forming a first electrically insulating layer which fills said trench groove and extends over an upper surface of said substrate, wherein said first electrically insulating layer has a first surface coverage, and an upper surface of said first electrically insulating layer has a first hollow positioned over said trench groove ; and

forming a second electrically insulating layer over said first electrically insulating layer, wherein said second electrically insulating layer fills said first hollow, and an upper surface of said second electrically insulating layer has a second hollow positioned over said trench groove, and said second electrically insulating layer has a second surface coverage smaller than said first surface coverage.

2. The method as claimed in claim 1, further comprising the step of : carrying out a heat treatment to cause a surface re-flow of said second electrically insulating layer, whereby said second hollow is reduced in size.

3. The method as claimed in claim 2, further comprising the step of : carrying out an etch back to said first and second

electrically insulating layers after said heat treatment, whereby said second hollow is reduced in size.

4. The method as claimed in claim 3, wherein a taper angle of said second hollow after said etch back is not more than 20 degrees.

5. The method as claimed in claim 1, wherein a thickness of said first electrically insulating layer over said upper surface of said substrate is almost equal to a distance between said first hollow and an opening edge of said trench groove.

6. The method as claimed in claim 1, wherein a thickness of said first electrically insulating layer over said upper surface of said substrate is larger than a half of an opening diameter of said trench groove.

7. The method as claimed in claim 1, further comprising the step of : carrying out an etch-back to said first electrically insulating layer only, whereby said first hollow is reduced in size, before said second electrically insulating layer is then formed over said etch-backed surface of said first electrically insulating layer.

8. The method as claimed in claim 7, further comprising the step of : carrying out another etch-back to said second electrically insulating layer only separately from said etch-back to said first electrically insulating layer, whereby said second hollow is reduced in size.

9. The method as claimed in claim 8, further comprising the step of : carrying out a heat treatment to cause a surface re-flow of said second electrically insulating layer, whereby said second hollow is reduced in size, before said another etch-back to said second electrically insulating layer.

10. The method as claimed in claim 1, wherein said first electrically insulating layer comprises a non-doped silicate glass film.

11. The method as claimed in claim 10, wherein said non-doped silicate glass film is formed by a low pressure chemical vapor deposition using a tetra ethyl ortho silicate gas.

12. The method as claimed in claim 1, wherein said second electrically insulating layer comprises a boro-phospho silicate glass film.

13. The method as claimed in claim 12, wherein said boro-phospho silicate glass film is formed by a low pressure chemical vapor deposition using a tetra ethyl ortho silicate gas.

14. The method as claimed in claim 12, wherein said boro-phospho silicate glass film is formed by a normal pressure chemical vapor deposition using a tetra ethyl ortho silicate gas.

15. The method as claimed in claim 12, wherein said boro-phospho silicate glass film is formed by a normal pressure chemical vapor deposition using silane (SiH_4), phosphine (PH_3), diborane (B_2H_6), and oxygen (O_2).

16. The method as claimed in claim 1, wherein said first electrically insulating layer has a first re-flowablity, and said second electrically insulating layer has a second re-flowablity larger than said first re-flowablity.

17. The method as claimed in claim 1, wherein said first electrically insulating layer has a first surface migration, and said second electrically insulating layer has a second surface migration smaller than said first surface migration.